

C/CAG

CITY/COUNTY ASSOCIATION OF GOVERNMENTS OF SAN MATEO COUNTY

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Millbrae • Pacifica • Portola Valley • Redwood City • San Bruno • San Carlos • San Mateo • San Mateo County • South San Francisco • Woodside*

1:15 p.m., Thursday, July 21, 2005
San Mateo County Transit District Office¹
1250 San Carlos Avenue, Second Floor Auditorium
San Carlos, California

TECHNICAL ADVISORY COMMITTEE (TAC) AGENDA

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|---|---------|---------------|
| 1. Public comment on items not on the Agenda (presentations are customarily limited to 3 minutes). | Cullen | No materials. |
| 2. Issues from the last C/CAG and CMAQ meetings: <ul style="list-style-type: none">• Approval of the C/CAG Procurement Policy.• Approval of the 3rd cycle of the Local Transportation Services (Shuttle program). | Wong | No materials. |
| 3. Approval of the Minutes from May 19, 2005. | Cullen | Pages 1-3 |
| 4. Accept the Draft 2005 Congestion Management Program (CMP) for San Mateo County. | Wong | Pages 4-7 |
| 5. Recommendation on C/CAG funding commitment to update GIS maps for San Mateo County. | Martone | Pages 8-10 |
| 6. Accept the Draft San Mateo County Intelligent Transportation Systems (ITS) Strategic Plan. | Wong | Pages 11-13 |
| 7. Measure A update. | Hurley | Oral Report |
| 8. Member Reports. | Cullen | |

¹ For public transit access use SamTrans Bus lines 390, 391, 292, KX, PX, RX, or take CalTrain to the San Carlos Station and walk two blocks up San Carlos Avenue. Driving directions: From Route 101 take the Holly Street (west) exit. Two blocks past El Camino Real go left on Walnut. The entrance to the parking lot is at the end of the block on the left, immediately before the ramp that goes under the building. Enter the parking lot by driving between the buildings and making a left into the elevated lot. Follow the signs up to the levels for public parking.

**TECHNICAL ADVISORY COMMITTEE (TAC)
FOR THE
CONGESTION MANAGEMENT PROGRAM (CMP)**

**May 19, 2005
MINUTES**

The one hundred fifty-fourth (154th) meeting of the Technical Advisory Committee (TAC) was held in the SamTrans Offices, 1250 San Carlos Avenue, San Carlos, Bacciocco Auditorium. Neil Cullen, Co-Chair, called the meeting to order at 1:21 p.m. on Thursday, May 19, 2005.

TAC members attending the meeting were:

George Bagdon - Burlingame
Merrill Buck - San Bruno
Neil Cullen - San Mateo County Engineer (Co-Chair)
Kenneth Folan - Metropolitan Transportation Commission (MTC)
Jon Lynch – Redwood City
Rick Mao – Colma
Parviz Mokhtari – San Carlos
Rubin Niño – Menlo Park
Van Ocampo - Pacifica
Larry Patterson – San Mateo
Ray Razavi - South San Francisco
Ian McAvoy – SamTrans
Joe Hurley – Transportation Authority

Others attending the meeting were:

Richard Napier – Executive Director, C/CAG
Pat Dixon - San Mateo County Transportation Authority Citizens Advisory Committee
Brian Lee – San Mateo County Public Works
Randy Breault - Brisbane Public Works
Walter Martone – C/CAG
Sandy Wong – C/CAG
Onnolee Trapp – CMAQ Committee
Jim Bigelow – Redwood City/San Mateo County Chambers of Commerce
Joel Slavitt – SamTrans
Richard Cook - SamTrans

1. Public comment on items not on the agenda.

None.

2. Issues from the last C/CAG and CMAQ meetings.

As shown on Agenda.

3. Approval of the Minutes from April 21, 2005.

Approved.

4. San Mateo County Transportation Development Act (TDA) Article 3 program for Fiscal Year 2005-06 for \$1,324,548.

Sandy Wong presented this as an information item. The FY 2005-06 Transportation Development Act (TDA) Article 3 Program as approved by C/CAG includes 22 bicycle and/or pedestrian projects for a total of \$1,324,548. This is a very good year because all but three project applications are funded, except for one project that is partially funded. That is because this cycle of programming combines funding from both FY 2004-05 & FY 2005-06. In addition, a Daly City project was funded by the Regional Bike/Pedestrian Program and therefore removed from the TDA Article 3 program.

TAC members suggested that starting with the next funding cycle, the issue of pedestrian projects needs to be addressed as this program was more bicycle oriented.

5. Recommendations for the award of \$346,599.50 to seven cities under the 3rd cycle of the “Local Transportation Services” component of the Countywide Congestion Relief Plan.

Walter Martone presented the recommendations for the award of \$346,599.50 to seven cities under the 3rd cycle of Local Transportation Services. This program is funded from the C/CAG Member assessments that were adopted under the Countywide Congestion Relief Plan and dollar for dollar matching funds from the San Mateo County Transportation Authority. All applicants must also match these funds dollar for dollar from local fund sources.

Projects recommended for funding must meet the “Best Practice” criteria that was included in the recent shuttle program evaluation that was commissioned by C/CAG. Most projects recommended for award this cycle are continued from the last cycle except for two new projects. One is East Palo Alto’s transit pass subsidy for low income applicants. The other is on-call services for the Bayshore Area of Daly City and all of Brisbane.

6. Measure A update.

Joe Hurley stated that a Request for Proposal (RFP) for the Measure A Strategic Plan is expected to be out by this June.

Ian McAvoy pointed out that the Broadway/US 101 interchange project might be brought up by the Burlingame representative on C/CAG as to how the project relates to other C/CAG capital improvement projects.

7. Items of interest/new business.

Rich Napier, Executive Director of C/CAG, provided a handout on the Prop 42 Local Street and Road Funds.

Mr. Jim Bigelow provided information regarding the draft Transit Oriented Development (TOD) policy being developed by the Metropolitan Transportation Commission (MTC). This policy will condition the allocation of regional discretionary transit funds under MTC's control, provided by MTC Resolution 3434, on supportive land use policies for station areas and corridors included in the region's transit expansion program. This new policy will apply to the Dumbarton Rail Project. Regional Measure Two (RM 2) funding distribution can be withheld if a project does not meet the transit goals set forth by this policy.

Co-Chair Neil Cullen mentioned that letters regarding the NPDES program are on the way. Some cities desire to have a cap of 3 to 4% of the consumer price index.

The meeting adjourned at 1:55 p.m.

C/CAG AGENDA REPORT

Date: July 21, 2005
To: Technical Advisory Committee
From: Sandy Wong
Subject: DRAFT 2005 CONGESTION MANAGEMENT PROGRAM (CMP) FOR
SAN MATEO COUNTY

(For further information contact Sandy Wong at 599-1409)

RECOMMENDATION

That the TAC accept the Draft Congestion Management Program (CMP) for 2005 for San Mateo County and recommend it to the Congestion Management and Air Quality (CMAQ) Committee of the C/CAG Board.

FISCAL IMPACT

It is not anticipated that the changes in the 2005 document will result in any increase in the current fiscal commitment that C/CAG has made to the Program.

BACKGROUND/DISCUSSION

Every two years, C/CAG as the Congestion Management Agency for San Mateo County, is required to prepare and adopt a Congestion Management Program (CMP). C/CAG is also required to measure the roadway segments and intersections on the Congestion Management Program roadway network to determine the change in LOS from one period to the next. This basically is a report card on whether the roadway system is improving or getting worse.

As part of the 2005 CMP update, C/CAG has retained Fehr & Peers Transportation Consultants to monitor the roadway segments and intersections on the Congestion Management Program roadway network. As a result of this monitoring, C/CAG is required to determine what location(s), if any, has(have) exceeded the LOS standard that was established by C/CAG in 1991. Deficient locations are determined after deducting the traffic attributable to:

- Interregional travel.
- Construction, rehabilitation, or maintenance of facilities that impact the system.
- Freeway ramp metering.
- Traffic signal coordination by the state or multi-jurisdictional agencies.
- Traffic generated by the provision of low-income and very low income housing.
- Traffic generated by high-density residential development or mixed-use development (half of the mixed use development must be used for high density residential) within one-fourth mile of a fixed rail passenger station.

If, after applying the above exclusions, a deficient location is identified, the C/CAG Travel Demand Forecasting Model is used to determine the origins of the traffic at the deficient locations to determine which jurisdictions must participate in the development of a deficiency plan. A jurisdiction must participate if the traffic it is contributing is greater than ten percent (10%) of the capacity of the deficient location. On February 14, 2002, C/CAG adopted the San Mateo County Congestion Relief Plan that fulfills the requirement of a Countywide Deficiency Plan for all roadway segment and intersection deficiencies identified through the monitoring done for the 1999, 2001, 2003, and 2005 Congestion Management Programs. Therefore no jurisdiction will be required to develop a deficiency plan as a result of this monitoring report.

2005 Traffic Monitoring Analysis

Based on the monitoring report and after the exclusions have been applied, five of the 53 roadway segments exceeded the LOS standard. This compares with one deficient segment in 1997 and eight deficient segments in 1999, nine deficient segments in 2001 and four deficient segments in 2003.

The complete Monitoring Report is included in Appendix F of the Draft Congestion Management Program for 2005. The five roadway segments in violation of the LOS Standard in 2005 are:

- SR 1, San Francisco County Line to Linda Mar Boulevard
- SR 35, I-280 to SR 92
- SR 84, Willow Street to University Avenue
- SR 92, I-280 to US 101
- I-280, SR 1 (south) to San Bruno Avenue

Of the above five segments, the SR 35 and SR 92 segments were not in violation in 2003. The remaining segments (SR 1, SR 84, and I-280) were also in violation in 2003. The following roadway segment that violated the LOS Standard in 2003 were found not to be in violation in 2005:

- I-280, San Francisco County Line to SR 1 (north)

For the sixteen intersections monitored, the 2005 traffic volumes, lane configurations, and signal phasings were used as inputs to the intersection level of service calculations. No reductions for inter-regional travel were applied to the intersection volumes. There were no LOS standard violations for intersections in 2005.

In general, the following are some observations from the data contained in the report. These observations are based on the total traffic. The exclusions for determining deficiencies are not considered in these observations.

- From 1995 to 1997 there was an increase in traffic at 26 locations and a decrease at 9 locations.
- From 1997 to 1999 there was an increase in traffic at 24 locations and a decrease at 18 locations.
- From 1999 to 2001 there was an increase in traffic at 13 locations and a decrease at 14 locations.
- From 2001 to 2003 there was an increase in traffic at 6 locations and a decrease at 19 locations.

- From 2003 to 2005 there was an increase in traffic at 17 locations and a decrease at 11 locations.
- From 1995 to 2005 there was an increase in traffic at 31 locations and a decrease at 10 locations.
- The number of LOS F (F designated the worse possible congestion) roadway segments has gone from 6 in 1995, to 8 in 1997, to 18 in 1999, to 16 in 2001, to 13 in 2003, to 12 in 2005.
- The number of LOS F intersections has gone from 4 in 1995, to 4 in 1997, to 3 in 1999, to 1 in 2001, to none in 2003 and 2005. The majority of intersections that were monitored were along Route 82 (El Camino Real).

Travel times were also measured for the U.S. 101 corridor between the San Francisco and Santa Clara County Lines. The U.S. 101 corridor was selected because, in addition to mixed-flow lanes, it includes High Occupancy Vehicle (HOV) lanes, bus routes, and passenger rail. Results are summarized in Table 3 below.

Table 3 Average Travel Time in U.S. 101 Corridor (in Minutes)¹																
Mode	AM ²								PM ³							
	Northbound				Southbound				Northbound				Southbound			
	'99	'01	'03	'05	'99	'01	'03	'05	'99	'01	'03	'05	'99	'01	'03	'05
Single-Occupant Auto	29	27	29	31	45	49	37	38	38	31	39	33	31	26	30	35
Carpool	29	25	28	30	40	38	29	31	36	31	34	32	28	25	25	32
Caltrain	42	44	43	42	45	48	49	42	46	49	49	42	42	45	46	42
SamTrans Route KX	61	66	68	72	68	76	74	72	71	75	75	79	63	71	72	75
Notes: ¹ Between San Francisco and Santa Clara County Lines. ² Morning commute period (Defined as 7:00 am to 9:00 am) ³ Evening commute period (Defined as 4:00 pm to 7:00 pm)																

Travel time surveys were also conducted for the HOV lanes on U.S. 101, which currently extend from the Santa Clara County Line to Whipple Avenue. The total travel time for carpools was estimated by adding the travel time in the HOV lanes between the Santa Clara County Line and Whipple Avenue to the travel time in the mixed-flow lanes between Whipple Avenue and the San Francisco County Line.

Travel times for bus and passenger rail modes were estimated based on SamTrans and Caltrain published schedules. SamTrans bus route KX operates in the U.S. 101 corridor. This route provides service through San Mateo County from San Francisco to Palo Alto. Travel times were based on the average travel time between County lines during the commute hours. Travel time via Caltrain was calculated in a similar manner.

ATTACHMENT

1. Draft Congestion Management Program (CMP) for 2005 for San Mateo County
(Provided to TAC members only, on June 16, 2005. Public members may contact Sandy Wong at 650-599-1409 if interested in receiving the document.)

C/CAG AGENDA REPORT

Date: July 21, 2005

To: Technical Advisory Committee

From: Richard Napier, Executive Director

Subject: REVIEW AND APPROVAL OF A C/CAG FUNDING COMMITMENT TO UPDATE THE COUNTYWIDE GEOGRAPHICAL INFORMATION SYSTEM (GIS)

(For further information contact Walter Martone at 599-1465)

RECOMMENDATION

That the Technical Advisory Committee (TAC) adopt a recommendation to the C/CAG Board to provide a funding commitment to update the Countywide Geographical Information System (GIS) contingent upon securing funding commitments from the County, the Transportation Authority, and other funding partners such as Special Districts. This recommendation, if adopted, should also address whether the TAC also recommends enhancements so that the GIS can be used for engineering design.

FISCAL IMPACT

The estimated cost for completing a new Countywide aerial photo dataset, rectifying it to a base map, and making it available to the public is \$480,000. It is recommended that this cost be divided among the funding partners as follows:

- San Mateo County - \$240,000
- C/CAG - \$100,000
- Transportation Authority - \$100,000
- Remaining partners - \$40,000

The resolution of the aerial photography can be enhanced to the quality needed for the engineering of roadway and transit projects for an added cost of \$150,000. This cost would be split equally among San Mateo County, C/CAG, and the Transportation Authority if these three agencies jointly agree to this enhancement.

SOURCE OF FUNDS

Funding to support the C/CAG participation in this project could come from the Countywide Congestion Relief Plan and the vehicle registration fee adopted by C/CAG under AB 1546.

BACKGROUND/DISCUSSION

San Mateo County in cooperation with a number of the cities and other entities have been pursuing the updating of a Countywide GIS that would have a basemap that has been rectified to new and consistent aerial photographs covering the entire County. This will result in significantly improved spatial accuracy, better resolution, and will take advantage of the latest improvements in technology.

The most familiar products from a GIS are maps for various purposes. First, and foremost, however, a GIS is a data storage, management, and retrieval system that can display or query data using space or geography as an indexing mechanism.

This data management and display function incorporated into a consistent, Countywide, and up to date GIS is important to support a number of the projects that C/CAG is the sponsor of or is a partner in. These include:

- The Countywide Transportation Plan and a variety of reports that are related to this Plan.
- Development, production, and distribution of the Countywide Bicycle Facilities Map that will become available on the C/CAG website.
- Deployment of Intelligent Transportation System (ITS) programs throughout the County based on the Countywide ITS Plan that is currently being developed under contract with C/CAG.
- Development of Airport Influence Areas
- Development and distribution of various maps and promotional materials for the various shuttle and local transportation services programs funded by C/CAG.
- Tracking of the status and performance of various transportation programs funded/supported by C/CAG.
- Monitoring and tracking over time of roadway performance as required in the Congestion Management Program.
- Monitoring and tracking of National Pollutant Discharge Elimination System (NPDES) programs.
- The integration of land use and transportation planning and the tracking of the impacts of smart growth policies on the transportation network.
- The organization and display of travel forecasting information that is produced through C/CAG's Countywide Travel Forecasting Model, on the roadways and transit systems in the County.
- The development of conceptual designs for roadway improvements and the analysis of the impacts of these improvements on up and downstream traffic.
- If the optional enhancement to the System is adopted, the aerial photography and rectification will be sufficient for engineering design purposes instead of just conceptual design.
- Production of right-of-way information and tracking of work on transportation systems in the County that are being done by other organizations through linking the GIS to other data management systems.
- Maintaining an up to date inventory and spatially accurate information about various facilities in the County including: utilities (above and below ground), communication

networks, emergency and incident management facilities, location of certain materials including toxics

- Maintaining and producing information about historical and current data relating to trends and forecasts.
- Maintaining a spatially accurate depiction of the topography of the County that can be useful in land use and transportation planning and presenting information for public consumption.

All of these GIS applications would also be applicable for the individual jurisdictions in San Mateo County and other entities such as SamTrans/Transportation Authority. This System would build on a Countywide, consistent base map, which will be rectified to current, state-of-the-art aerial photographs. Once completed, all jurisdictions and other entities will be able to access the information through receipt of disks that contain updates of the database and through on-line connections.

Relationship to the GIS for other Bay Area Counties: The Association of Bay Area Governments (ABAG) has created a task force called the Bay Area Regional GIS Council (BARGC) to discuss, formulate and implement strategies to collect and share GIS data in the region. This Council has crafted a series of interlocking Memorandums of Understanding that will assist in building processes (legal and technical) so that data can be shared and integrated. The current membership of BARGC includes all nine Bay Area Counties, ABAG, MTC, the Cities of Oakland and San Jose, and the Bay Area Automated Mapping Association.

ATTACHMENTS

None.

C/CAG AGENDA REPORT

Date: July 21, 2005
To: Technical Advisory Committee
From: Sandy Wong
Subject: ACCEPTANCE OF SAN MATEO COUNTY INTELLIGENT
TRANSPORTATION SYSTEM (ITS) STRATEGIC PLAN

(For further information contact Sandy Wong at 599-1409)

RECOMMENDATION

That the Technical Advisory Committee (TAC) accept the San Mateo County Intelligent Transportation System (ITS) Strategic Plan.

FISCAL IMPACT

Funding for the preparation of the ITS Strategic Plan has been included in C/CAG budget. Acceptance of this plan will not have any additional fiscal impact.

SOURCE OF FUNDS

Funding for this study comes from the Congestion Relief Plan adopted by C/CAG on February 14, 2002. The source of the funds is C/CAG member assessments combined with matching funds from the Transportation Authority.

BACKGROUND/DISCUSSION

The San Mateo Countywide Intelligent Transportation System (ITS) Strategic Plan has been developed under the guidance of the Working Group consisting of the following members: Larry Patterson (San Mateo), Ray Davis (Belmont), Richard Haygood (Redwood City), Rene Baile (Menlo Park), Joe Hurley and Shahla Yazdy (San Mateo County Transportation Authority), Walter Martone and Sandy Wong (C/CAG), Frank Burton and Larry Stueck (SamTrans), Jeff Georgevich (MTC), Albert Yee, Alan Chow, Erik Alm and many dedicated representatives from Caltrans. The Working Group was assisted by a consulting team led by DKS Associates. Input to the ITS Strategic Plan was solicited from a large number of agencies including all 21 jurisdictions in San Mateo County, SamTrans, Caltrain, SM County Transportation Authority, Peninsula Traffic Congestion Relief Alliance, Caltrans, California Highway Patrol, Federal Highway Administration, and County Emergency Services.

The ITS Strategic Plan is intended to provide direction in the application of advanced transportation technology in San Mateo County over the next twenty years. The Strategic Plan includes all potential ITS applications in the County for auto, transit, traveler information, and incident management opportunities. The Strategic Plan is organized as follows:

Executive Summary

Chapter 1 – Introduction

Chapter 2 – Setting (It depicts the existing transportation networks and existing local and regional ITS initiatives.)

Chapter 3 – ITS Vision for San Mateo County (It states the Countywide ITS vision and goals.)

Chapter 4 – Freeway Management (It includes goals, opportunities, and priority projects to manage the freeway system in order to maximize its efficiency by enhancing flow and reducing delays.)

Chapter 5 – Arterial Management (It includes goals, opportunities, and priority projects to manage the arterial system and for it to work in concert with the freeway system.)

Chapter 6 – Transit Management (It includes goals, opportunities, and priority projects to manage and enhance the transit system. Major input for this chapter was received from SamTrans.)

Chapter 7 – Traveler Information (It includes goals, opportunities, and priority projects to provide information to travelers and transit users to aid their decision making and travel plans.)

Chapter 8 – Parking Management (This chapter has been deemed low in priority from a countywide perspective by the study team.)

Chapter 9 – Incident Management (It includes goals, opportunities, and priority projects to plan and coordinate responses to incidents that occur on either the freeway or arterials.)

Chapter 10 – Supporting Elements (It includes goals, opportunities, and priority projects for communications network, procedures, protocols, and data archiving.)

Chapter 11 – Project Implementation (It's a summary of all projects identified through the strategic planning process.)

Chapter 12 – Next Steps (It's a summary of projects that can be developed and implemented in the near future.)

Next Steps:

As summarized in Chapter 12, a number of the high priority projects identified through the strategic planning process can be moved to implementation stage immediately. Specifically, following projects are recommended to be developed and implemented in the near term:

- Freeway Management Project #1: Bring already deployed freeway ITS devices into full and stable operation. (C/CAG in partnership with Caltrans)
- Arterial Management Project #1: Upgrade existing traffic signal systems – fill critical gaps in signal inter-connect network. (C/CAG, local agencies, and Caltrans)
- Arterial Management Project #7: Provide a link between traffic signal systems operated by local agencies and by Caltrans (Local agencies, Caltrans, and C/CAG).

- Transit Management Project #3: Explore applications for transit signal priority along key transit corridors. (on-going by SamTrans)
- Transit Management Project #4: Install electronic information signs at transit transfer and major activity centers. (on-going by SamTrans)
- Transit Management Project #7: Expand deployment of TransLink electronic fare system. (on-going by MTC)
- Incident Management Project #1: Develop Countywide incident management plans. (C/CAG in cooperation with local agencies, emergency service providers, Office of Emergency Services, Caltrans, MTC, CHP, etc.)
- Support Element Project #1: Prepare an overall Communications Network Plan for the San Mateo County ITS Program. (C/CAG, local agencies, transit operators, Caltrans, MTC, etc.)

ATTACHMENT

Draft Final San Mateo County Intelligent Transportation Systems Strategic Plan
(Enclosed separately for TAC members only).